Clarke®

POWER

1KW INVERTER GENERATOR

MODEL NO: IG1000

PART NO: 8877050

OPERATION & MAINTENANCE INSTRUCTIONS

LS0709

INTRODUCTION

Thank you for purchasing this CLARKE 1kw Inverter Generator

Before attempting to use this product, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to your purchase giving you long and satisfactory service.

GUARANTEE

This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

PARTS AND SERVICING

For Parts & Servicing, please contact your nearest dealer, or CLARKE International, on one of the following numbers.

PARTS & SERVICE TEL: 020 8988 7400
PARTS & SERVICE FAX: 020 8558 3622
or e-mail as follows:
PARTS: Parts@clarkeinternational.com
SERVICE: Service@clarkeinternational.com

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GENERAL SAFETY RULES

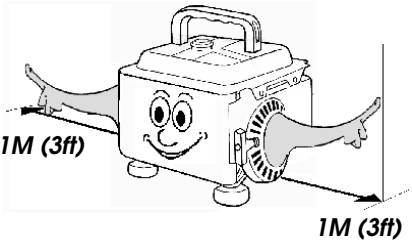
WARNING: EXHAUST FUMES CAN BE EXTREMELY DANGEROUS IF INHALED

WORK AREA

- ***Always use in a well ventilated area.***
- ***Always position the exhaust outlet away from people.***
- **Read these safety instructions before using the equipment.**
- **Keep children away from the generator**

POSITIONING THE GENERATOR

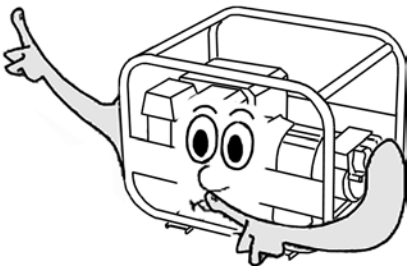
1. Keep the generator at least 1 m (3 ft) from buildings or other equipment, or the engine may overheat.
2. ***Always*** ensure the generator is on a solid, flat surface.
3. ***Always*** ensure the surrounding area is free from any material that could burn or be damaged by heat.



4. ***Never*** move or tilt the generator whilst it is switched on.

FIRE PREVENTION

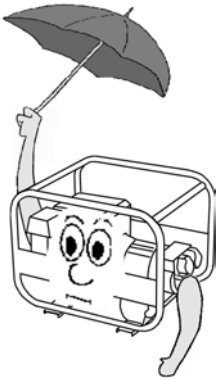
1. ***Always*** switch the engine OFF when refuelling.
2. ***Always*** refuel in a well ventilated area.
3. ***Never*** refuel while smoking or in the vicinity of an open flame.
4. ***Never*** overfill the tank, fill to the level specified (See "Checking the fuel level" on page 10.).



5. ***Never*** smoke whilst refuelling and avoid smoking or using a naked flame near the generator.

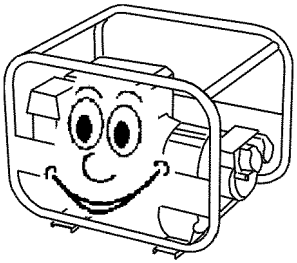
6. ***Never*** start the engine if there is spilled fuel. Any spillage must be wiped clean and the generator allowed to dry before attempting to start the engine.

PREVENTION OF ELECTRIC SHOCK

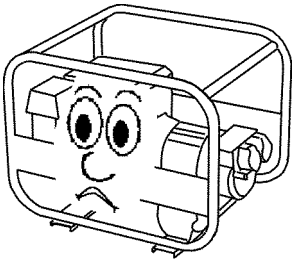


1. ***Never*** use the generator in wet conditions unless it is well protected/ covered. Under these conditions, adequate ventilation MUST be provided
2. ***Never*** operate the generator with wet hands
3. ***Never*** use water or any other liquids to clean the generator.
4. Make sure you ground (earth) the generator.

ADDITIONAL SAFETY RULES FOR GENERATORS



1. ***Always*** ensure the applied load does not exceed the generator rating. Overloading the generator is dangerous and could cause serious damage.
2. ***Always*** disconnect the generator when carrying out any maintenance.
3. ***Always*** ensure the generator reaches operating speed before connecting a load.



4. ***Never*** allow the generator to run out of fuel when a load is connected.
5. ***Never*** transport the generator with fuel in the tank.
6. ***Do Not*** connect to a commercial or residential power supply; e.g. ring main.
7. ***Never*** allow the generator air vents to become blocked.

SAFETY SYMBOLS

Caution - The user should be aware of a general hazard

Dangerous Voltage

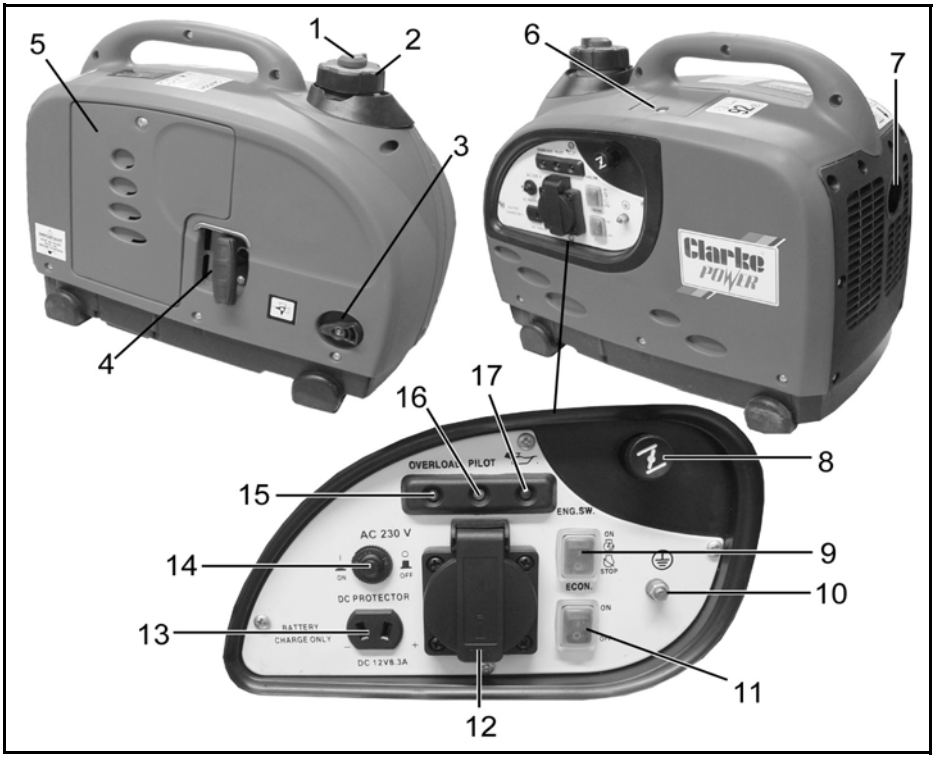
Flammable

Hot Surface - Do not touch

Poisonous fumes - Do not use the generator in an enclosed space.

Read Instruction manual before use.

GENERATOR OVERVIEW



NO	DESCRIPTION	NO	DESCRIPTION
1	Air Vent Knob	10	Earthing Point
2	Fuel Cap	11	Economy Control Switch
3	Fuel Valve Knob	12	AC Socket
4	Starting Handle	13	DC Socket
5	Left Side Maintenance Cover	14	DC Circuit Breaker
6	Top Maintenance Cover	15	Overload Indicator
7	Muffler	16	Output Indicator
8	Choke	17	Oil Alarm Indicator
9	Engine ON/OFF Switch		

UNPACKING AND ASSEMBLY

Unpack your Generator and check to ensure the following items are present. Should there be any deficiency or damage caused during transit contact your Clarke dealer immediately.

- 1 x Inverter Generator
- 1 x Spark Plug Box Spanner
- 1 x Screwdriver/Tommy Bar
- 1 x Container with Spout for Oil Filling
- 1 x Operating & Instruction Manual
- 1 x 12V Battery Connector Lead

BEFORE USING THE GENERATOR

IMPORTANT: Generators should ALWAYS be earthed. Make sure you ground (earth) the generator.

Before using your generator check that:

- The generator is in good condition and free from any damage.
- The generator is clean and free from fuel or oil spillage.
- The generator is correctly located for use (See page 4).
- The fuel system and connectors are intact and there is no leakage.

NOTE: Always use a funnel to fill the fuel tank so as to avoid accidental spillage of fuel. If fuel is spilled it must be removed from the unit before attempting to start the engine.

WARNING: ENSURE THERE IS ADEQUATE FUEL IN THE TANK WHEN USING THE GENERATOR. RUNNING OUT OF FUEL OR STOPPING THE ENGINE SUDDENLY WITH A LOAD CONNECTED COULD CAUSE SERIOUS DAMAGE.

EARTH POINT

Always connect the generator to an earth point. The earth terminal is shown on the right.

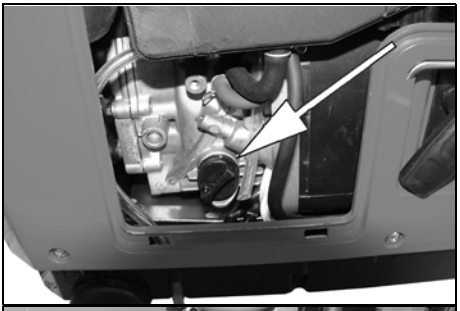
WARNING: TO CARRY OUT THIS CHECK, SWITCH THE ENGINE OFF.

WARNING: TAKE CARE NOT TO TOUCH ANY HOT PARTS OF THE GENERATOR WHEN CHECKING THE OIL LEVEL.

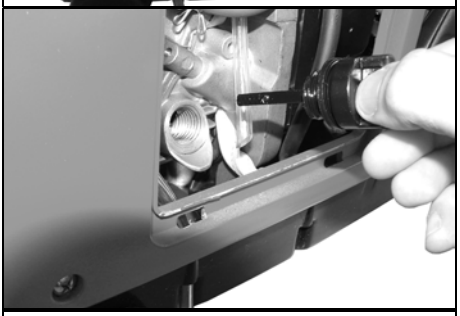
CHECKING THE ENGINE OIL LEVEL

NOTE: Place the generator on a level surface and check the oil level as follows.

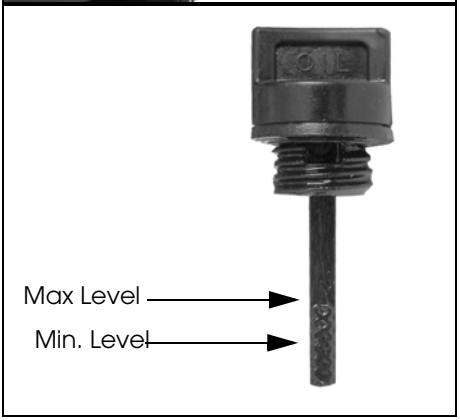
1. Remove the left side maintenance panel.
2. Turn the oil filler cap anti-clockwise and remove from the oil reservoir, wipe the dipstick with a clean cloth.



3. Insert the dipstick back into the oil filler tube and then remove it again. Do not screw in the oil filler cap/dipstick when doing this.



4. If the oil is below the Min. level on the dipstick, add oil to the oil reservoir.
   - Oil Capacity (See "Specifications" on page 23)
   - We recommend the use of SAE30 oil in this generator.
   - Do not tilt the generator when adding engine oil. This could result in overfilling and damage to the engine.
5. Replace the oil filler cap.



CHECKING THE FUEL LEVEL

Make sure there is sufficient fuel in the tank.

1. To check the fuel level, open the fuel filler cap.
2. Slowly add fuel to the fuel tank (maximum 2.7L)
   - Do not overfill the fuel tank.
3. Replace the fuel filler cap securely.

WARNING: FUEL IS HIGHLY FLAMMABLE AND POISONOUS.

WARNING: SEE "GENERAL SAFETY RULES" ON PAGE 4 AND READ THEM CAREFULLY BEFORE REFUELING.

WARNING: DO NOT FILL ABOVE THE TOP OF THE FUEL FILTER OR IT MAY OVERFLOW WHEN THE FUEL HEATS UP AND EXPANDS.

WARNING: WIPE UP ANY SPILLED FUEL IMMEDIATELY.

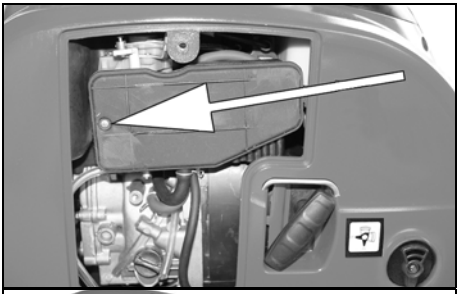
WARNING: AFTER REFUELING, MAKE SURE THE TANK CAP IS TIGHTENED SECURELY.

RECOMMENDED FUEL

Your generator has been designed to use regular unleaded gasoline with a octane number of 86 or higher.

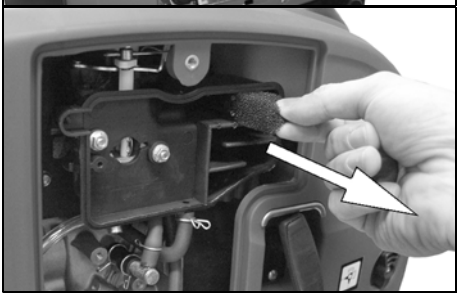
CHECKING THE AIR FILTER

1. Remove the left side maintenance panel.
2. Remove the air filter cover screw shown on the right.



3. Remove the air filter cover

4. Remove the air filter element.
5. Make sure that the air filter is clean and not damaged.
   - If the air filter is damaged contact Clarke spare parts department for a replacement See page 2
   - If the filter is dirty, wash the filter in a solution of warm water and mild detergent and rinse thoroughly. Leave the filter to dry completely, once it is dry immerse the filter in clean engine oil and sqeeze the filter to remove excess oil.



WARNING: DO NOT USE INFLAMMABLE SOLVENTS OR PETROL TO CLEAN THE AIR FILTER.

6. Replace the filter back into its original position and replace the air filter cover.

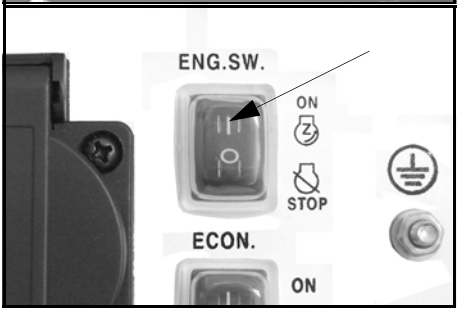
USING YOUR GENERATOR

STARTING THE ENGINE

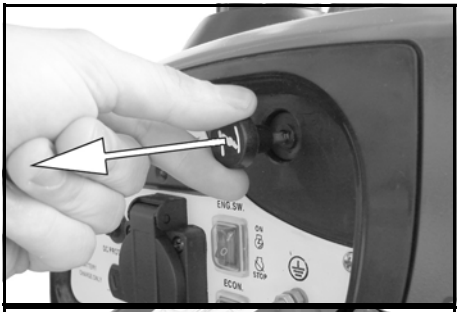
1. Remove all connections from the AC sockets.
2. Hold the fuel tank cap so that it will not move, and turn the air vent knob to the ON position.

3. Turn fuel valve to the ON position.

4. Set the engine switch to 'ON'.



5. Set the choke to the required position.
   - If the engine is cold, pull the choke all the way out.
   - If the generator is warm, push the choke all the way in.



6. Hold the generator handle firmly and pull the starting handle lightly until you start to feel resistance and then pull up sharply to start the engine.

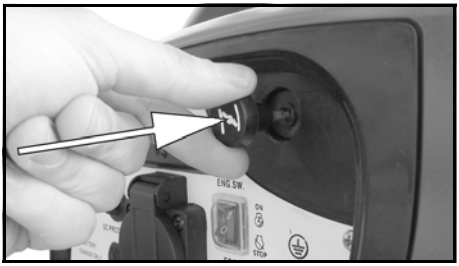
   NOTE: You may have to do this more than once.

.

WARNING: ONCE THE GENERATOR HAS STARTED, RELEASE THE STARTING HANDLE SLOWLY TO AVOID INJURY/DAMAGE AS IT WHIPS BACK.

NOTE: When you first start the generator, the overload indicator may light up for a few seconds, this is normal. If the overload indicator is still lit after 5 seconds, stop the engine and contact your Clarke dealer.

7. Once the engine has warmed up, push the choke knob all the way in.



CONNECTING ELECTRICAL DEVICES

The generator can supply both 230V AC and 12V DC

AC POWER

1. Start the engine. See page 12.
2. Make sure the appliance is turned off before connecting it to the generator.
3. Connect the appliance to the generator.

CAUTION: MAKE SURE THAT THE APPLIANCE BEING CONNECTED IS IN GOOD WORKING ORDER, IF IT BEGINS TO ACT ABNORMALLY OR STOPS SUDDENLY, DISCONNECT IT FROM THE GENERATOR

CAUTION: MAKE SURE THE APPLIANCE DOES NOT EXCEED THE MAXIMUM RATED LOAD FOR THE GENERATOR.

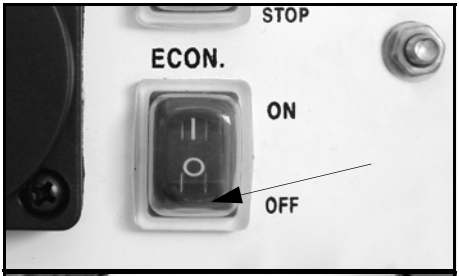
CAUTION: ANY DEVICE WITCH CONTAINS AN INDUCTIVE LOAD E.G. DEVICES THAT CONTAIN A MOTOR MAY REQUIRED MORE CURRENT ON STARTUP.

DC POWER

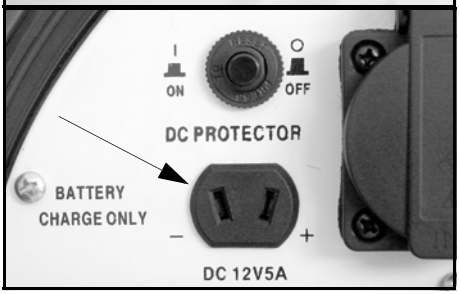
For charging car batteries only

CAUTION: MAKE CONNECTIONS TO THE BATTERY AFTER STARTING THE ENGINE.

1. Set the economy control switch to 'OFF'.
2. Start the generator.



3. Connect the battery charging leads to the generator.
4. Connect the battery charging leads to the battery.
   - Clamp the red wire to the positive (+) terminal and the black wire to the negative (-) terminal of the battery. Do not reverse these positions.

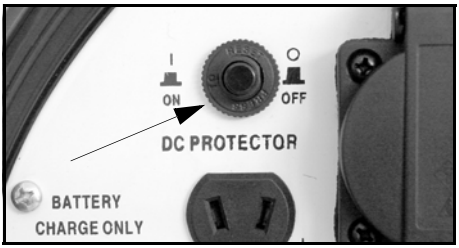


WARNING: TO PREVENT THE POSSIBILITY OF CREATING A SPARK NEAR THE BATTERY, CONNECT THE CABLE TO THE GENERATOR FIRST AND THEN TO THE BATTERY. DISCONNECT FROM THE BATTERY FIRST.

WARNING: AFTER YOU HAVE CHARGED THE BATTERY, ALWAYS DISCONNECT THE NEGATIVE LEAD FIRST.

DC OVER LOAD PROTECTOR

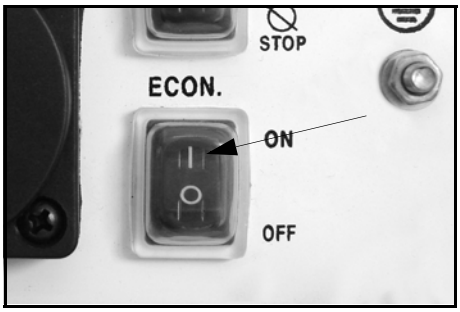
If the DC overload protector activates, wait for a few minutes and then press the reset button shown on the right.



ECONOMY SWITCH

When the economy control switch is turned on, the engine speed varies according to the load connected. This results in decreased fuel consumption and less noise.

When the economy control switch is turned off, the engine runs at the 5,500 r/min. regardless of whether there is a load connected or not.



CAUTION: THE ECONOMY CONTROL DOES NOT WORK EFFECTIVELY IF THE ELECTRICAL APPLIANCE REQUIRES 'BURSTS' OF POWER.

CAUTION: TURN THE ECONOMY CONTROL FEATURE OFF WHEN CONNECTING HIGH LOAD APPLIANCES OR WHEN CONNECTING TO THE DC OUTPUT.

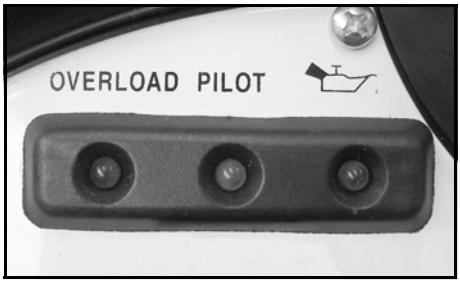
INDICATOR LIGHTS

PILOT LIGHT

The pilot light (Green) will remain on during normal operation.

OVERLOAD INDICATOR

The overload indicator (Red) will light up if there is an overload (in excess of 1kva) or a short circuit in the connected appliance.



If this happens, proceed as follows:

1. Turn off any connected electrical devices and stop the engine.
2. Reduce the total wattage of connected electric devices within the application range.
3. Check air inlet and around the control unit. If any blockages are found, remove them.
4. After checking, restart the engine.

LOW OIL INDICATOR

The oil indicator will light up when the oil level is low. See page 9.

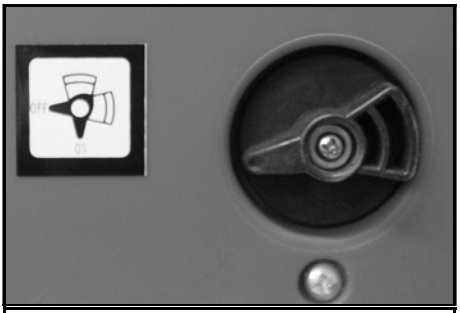
SHUTTING DOWN THE GENERATOR

To stop the generator in an emergency simply set the engine switch to 'OFF'.

NOTE: Turn off any electric devices.

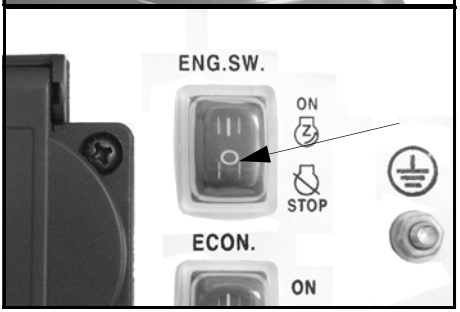
NOTE: Set the economy control switch to the '0' (OFF) position.

1. Disconnect any electric devices.
2. Turn the fuel valve knob to "OFF".



3. Turn the air vent knob to the off position.

4. Set the engine switch to the "0" (OFF) position.

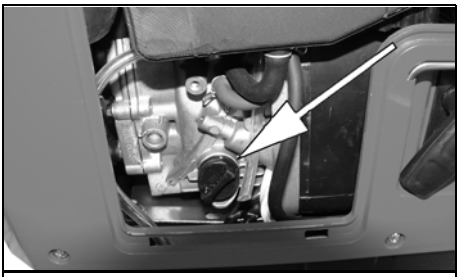


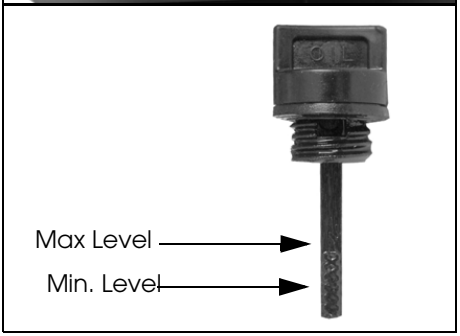
MAINTENANCE

THE ENGINE OIL (EVERY 20 HOURS OF USE)

CAUTION: PROLONGED EXPOSURE TO USED ENGINE OIL IS DANGEROUS, ALWAYS WASH YOUR HANDS THOROUGHLY AFTER HANDLING USED ENGINE OIL.

1. Remove the left side maintenance panel.
2. Turn the oil filler cap anti-clockwise and remove from the oil tank, wipe the dipstick with a clean cloth.
3. Lift the generator and pour the oil out of the oil reservoir into a suitable container
4. Fill the oil reservoir to the Max level with fresh oil.
   - Oil Capacity (See "Specifications" on page 23.)
   - We recommend the use of SAE30 oil in this generator.
5. Replace the oil filler cap and maintenance panel.



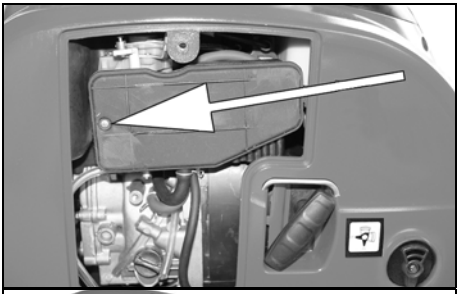


ENVIRONMENTAL PROTECTION

One of the most damaging sources of pollution is oil. Do not throw away used engine oil in with your domestic trash or down drains and sinks. Place it in a leak proof container and dispose of it according to local regulations.

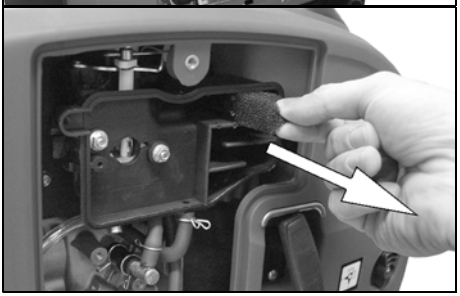
THE AIR FILTER (EVERY 50 HOURS OF USE)

1. Remove the left side maintenance panel.
2. Remove the air filter cover screw shown on the right.



3. Remove the air filter cover.

4. Remove the air filter element.
5. If the air filter is damaged contact Clarke spare parts department for a replacement See page 2.
   - If the filter is dirty, wash the filter in a solution of warm water and mild detergent and rinse thoroughly. Leave the filter to dry completely, once it is dry immerse the filter in clean engine oil and sqeeze the filter to remove excess oil.



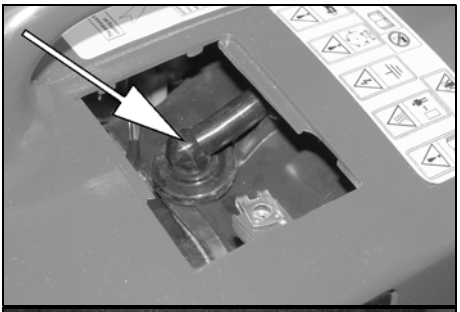
WARNING: DO NOT USE FLAMMABLE SOLVENTS OR PETROL TO CLEAN THE AIR FILTER.

6. Replace the filter back into its original position and replace the air filter cover.

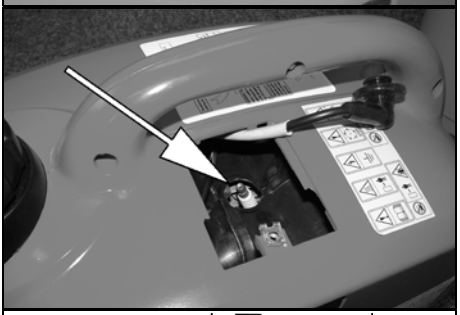
THE SPARK PLUGS (EVERY 50 HOURS OF USE)

CAUTION: ALLOW THE ENGINE TO COOL BEFORE REMOVING THE SPARK PLUG.

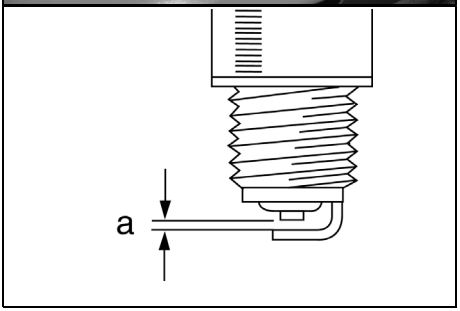
1. Remove the top maintenance panel.
2. Remove the spark plug cap from the spark plug.



3. Use a spark plug spanner (supplied) to remove the spark plug.
4. Check for discoloration and remove any carbon build up.



5. Check the spark plug gap (a), it should be between 0.6 and 0.7 mm, adjust if necessary.
6. Check the overall condition of the spark plug and replace if damaged.
7. Reinstall the spark plug and replace the spark plug cap.

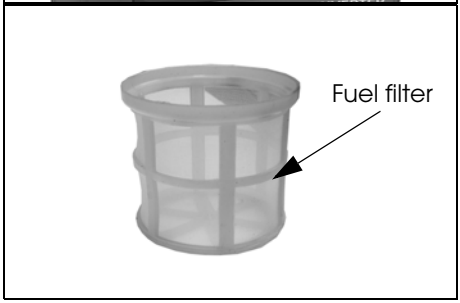


FUEL TANK FILTER

Just inside the fuel tank is a fuel filter, check this filter periodically and remove any contaminants which may have accumulated.

1. Remove the fuel tank cap and filter.

2. Clean the filter with solvent. If damaged, replace.
3. Wipe the filter and insert it.
4. Make sure the tank cap is tightened securely.



TROUBLESHOOTING

	CAUSE	SOLUTION
The generator fails to start	Engine switch is off	Set the engine switch to 'on'
	Not enough oil in the generator	Add more oil, See page 9
	No fuel	Add more fuel, See page 10
	Spark plugs not working correctly	Change the spark plugs, See page 20
The generator fails to generate electricity	The device you are trying to power is faulty	Make sure the device you want to power is working properly
	The overload indicator is on	Remove the appliance immediately, do not connect any appliance that requires more than 1 KVA.
	(dc supply only) The DC Overload protector has activated.	Press the reset button. See page 15
The generator is difficult to start	The air filter is dirty	Clean the air filter. See page 19

If this does not solve your problem, please contact the Clarke service department. see below.

PARTS AND SERVICING

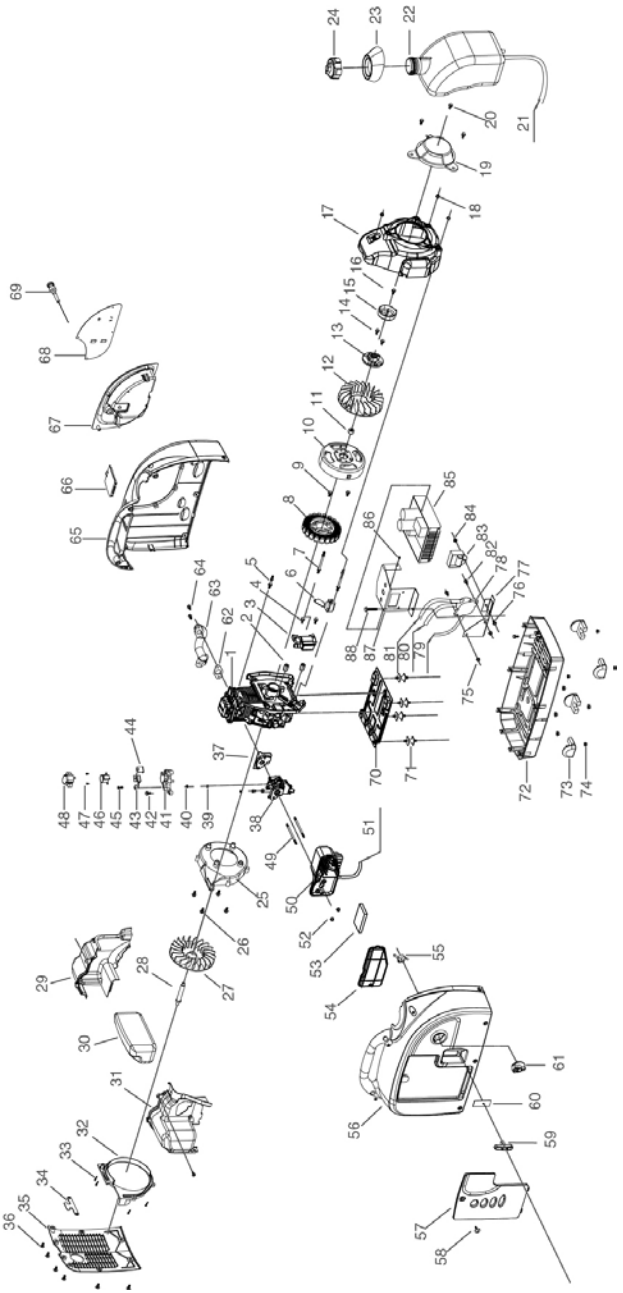
For Parts & Servicing, please contact your nearest dealer, or CLARKE International, on one of the following numbers.

PARTS & SERVICE TEL: 020 8988 7400
PARTS & SERVICE FAX: 020 8558 3622
or e-mail as follows:
PARTS: Parts@clarkeinternational.com
SERVICE: Service@clarkeinternational.com

SPECIFICATIONS

		IG1000
Engine	Engine Model	144F
	Type	Forced air cooled 4-stroke gasoline OHV
	Displacement (cm^3)	53
	Ignition type	TDI
	Fuel tank capacity (L)	2.7
	Maximum run time (h)	6
	Engine oil capacity (L)	0.25
	Guaranteed sound power (L_{WA} dB)	92
Generator	Rated Frequency (Hz)	50
	Rated AC Voltage (V)	230
	Rated Power (kVA)	0.9
	Max. Power (kVA)	1
	Rated DC Voltage (V)	12
	Rated DC Current (A)	5
Dimensions	Length (mm)	460
	Width (mm)	250
	Height (mm)	420
	Unpacked Weight (kg)	15

EXPLODED DIAGRAM & PARTS LIST



EXPLODED DIAGRAM & PARTS LIST

NO	DESCRIPTION	PART NO
1	Engine	RKIG100001
2	Ignition coil sleeve	RKIG100002
3	Ignition coil	RKIG100003
4	M6 Hex bolt	RKIG100004
5	Stud(short)	RKIG100005
6	Sensor Assembly	RKIG100006
7	Stud(long)	RKIG100007
8	Stator assembly	RKIG100008
9	M6 Hex bolt	RKIG100009
10	Rotor assembly	RKIG100010
11	M10 nut	RKIG100011
12	Fan blade	RKIG100012
13	Clutch	RKIG100013
14	M6 nut	RKIG100014
15	Clutch pedal	RKIG100015
16	M6 Hex bolt	RKIG100016
17	Fan blade cover	RKIG100017
18	M5 nut	RKIG100018
19	Recoil Starter	RKIG100019
20	M6 Hex bolt	RKIG100020
21	Fuel outlet hose	RKIG100021
22	Fuel tank	RKIG100022
23	Fuel tank cover	RKIG100023
24	Fuel cap	RKIG100024
25	Front clapboard	RKIG100025
26	M5 hex bolt	RKIG100026
27	Fan	RKIG100027
28	Fan blade shaft	RKIG100028
29	Left fan cover	RKIG100029
30	Muffler assy	RKIG100030
31	Right fan cover	RKIG100031
32	Fan cover	RKIG100032
33	M4 tapping screw	RKIG100033
34	Handle holder	RKIG100034
35	Rear cover	RKIG100035
36	M6 Hex bolt	RKIG100036

NO	DESCRIPTION	PART NO
37	Bakelite pad	RKIG100037
38	Carburetor	RKIG100038
39	M4 nut	RKIG100039
40	Washer	RKIG100040
41	Step motor holder	RKIG100041
42	M4 hex bolt	RKIG100042
43	Choke holder (1)	RKIG100043
44	Choke holder (2)	RKIG100044
45	M4 hex bolt	RKIG100045
46	Step motor	RKIG100046
47	M3 hex bolt	RKIG100047
48	Step motor top cover	RKIG100048
49	Double-headed stud	RKIG100049
50	Air filter	RKIG100050
51	Breath pipe	RKIG100051
52	M5 nut	RKIG100052
53	Air filter sponge	RKIG100053
54	Air filter cover	RKIG100054
55	Fuel cock	RKIG100055
56	Left case	RKIG100056
57	Left maintenance cover	RKIG100057
58	M6 screw	RKIG100058
59	Starter grip	RKIG100059
60	Starter cover	RKIG100060
61	Fuel cock, plastic knob	RKIG100061
62	Vent-pipe washer	RKIG100062
63	Vent-pipe	RKIG100063
64	M5 nut	RKIG100064
65	Right case	RKIG100065
66	Top maintenance cover	RKIG100066
67	Controller box	RKIG100067
68	Controller panel	RKIG100068
69	Choke soft axis	RKIG100069
70	Engine holder	RKIG100070
71	Absorber	RKIG100071
72	Bottom bracket	RKIG100072

EXPLODED DIAGRAM & PARTS LIST

NO	DESCRIPTION	PART NO
73	Pads	RKIG100073
74	M5 nut	RKIG100074
75	M5 screw cap	RKIG100075
76	M5 Hex bolt	RKIG100076
77	CDI box holder	RKIG100077
78	Vacuum pump	RKIG100078
79	Fuel inlet hose	RKIG100079
80	Vacuum pipe	RKIG100080
81	Pump inlet hose	RKIG100081
82	M5 Hex bolt	RKIG100082
83	CDI box assembly	RKIG100083
84	M5 nut	RKIG100084
85	Inverter assembly	RKIG100085
86	M4 hex bolt	RKIG100086
87	Inverter holder	RKIG100087
88	M5 Hex bolt	RKIG100088

DECLARATION OF CONFORMITY

DECLARATION OF CONFORMITY

This is an important document and should be retained.

We declare that this product complies with the following directives:

89/336/EE	*Electromagnetic Compatibility directive, as amended.*
73/23/EEC	*Low Voltage Equipment directive, amended by 93/68/EEC.*
98/37/ EC	*Machinery Directive.*
2000/14/EC	*Noise emissions (amended by 2005/88/EC)*

The Following Standards have been applied to the product:

BS EN 55012:2002	*BS EN 61000-6-1:2001*
EN 61000-6-3:2001+A11	*BS EN 12601:2001*

The technical documentation required to demonstrate that the products meet the requirements of the Low Voltage Equipment directive has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: **2006**

Product Description:	1kW Inverter Generator
Model number(s):	IG1000
Serial / batch Number:	Current Manufacture.
Date of Issue:	01/05/2008

Signed

A.C. AIKEN

Senior Manager Clarke International.

IG1000- RV1.doc

Page 1 of 1

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